General Exercises

General Exercises on Unit 1

First: **Choose the correct answer:**

1. .... is a number.
   - ⓐ (7 X 100,000) + (2 X 2,000)
   - ⓑ 50 millions
   - ⓒ 456
   - ⓓ 30,000 + 800

2. 23,080,250: .... **(in Word Form)**
   - ⓐ Three hundred and sixty million, eighty thousand, two hundred fifty.
   - ⓑ Twenty-three million, eight hundred thousand, two hundred fifty.
   - ⓒ Twenty-three million, eighty thousand, two hundred fifty.
   - ⓓ Three hundred and sixty million, eight hundred two thousand, fifty

3. 706,200,405: .... **(in Expanded Form)**
   - ⓐ 700,000,000 + 6,000,000 + 200,000 + 400 + 5
   - ⓑ 700,000,000 + 6,000,000 + 200 + 40 + 5
   - ⓒ 70,000,000 + 6,000,000 + 20,000 + 400 + 5
   - ⓓ 700,000,000 + 6,000,000 + 200,000 + 40 + 5

4. Three milliard (billion), five hundred ninety thousand, three hundred five: .... **(in Standard Form)**
   - ⓐ 3,000,590,305
   - ⓑ 3,590,305
   - ⓒ 3,590,000,305
   - ⓓ 3,005,900,305

5. The **smallest even** number formed from 8 different digits is ....
   - ⓐ 99,999,998
   - ⓑ 10,000,000
   - ⓒ 10,234,567
   - ⓓ 10,234,568

6. The **greatest odd** number formed from 6 different digits is ....
   - a) 999,999
   - b) 987,653
   - c) 987,645
   - d) 100,003

7. The value of the digit 6 in the **Thousands** place = **100 times** the value of the digit 6 in the .... place.
   - a) Ones
   - b) Tens
   - c) Hundreds
   - d) Thousands

8. 40,225,885 < ....
   - a) 8,688,988
   - b) 41,200,800
   - c) 9,999,999
   - d) 39,009,000

9. 258,456 ≈ .... *(To the nearest 10,000)*
   - a) 250,000
   - b) 260,000
   - c) 200,000
   - d) 300,000

10. The **smallest** integer that can be rounded to the nearest **100** so that the result is 2,300 is ....
    - a) 2,350
    - b) 2,250
    - c) 2,301
    - d) 2,299

Second: Complete the following:

1. The place value of the digit 6 in the number **6**58,478,203 is ....
2. The **largest** number that can be formed from the digits: (4, 8, 0, 9, 7, 3) is ....
3. 2 milliard (billions) + 7 millions + 225 thousands + 102 = ... **(in Word Form)** ....
4. The digit 4 in the number 2**4**8,237,752 is in the .... place.
5. The value of the digit in the Hundred-thousands place = **100 times** the value of the digit in the .... place.
6. (3 thousands and 5 tens) x 1,000 = ...

7 7,305,057 **(in Expanded Notation)** =

(7 X ....) + (3 X ....) + (5 X ....)

\+ (5 X ....) + (7 X ....)

8 Nine milliard (billion), seven hundred five million, thirty thousand, six

= .... **(in Standard Form)**

9 654,215 ≈ .... *(To the nearest 10,000)*

10 .... ≈ 45,000. *(To the nearest 1,000)*

(Complete with the ***smallest*** *number possible)*

Third: **Complete using (< , = or >):**

1 200,002,780. ☐ 200,020,078.

2 (5 X100,000,000) + (5 X 1). ☐ 550,000,000.

3 620,000,602. ☐ 62 millions, 602.

4 Three hundred million, three hundred. ☐ 300,300,000.

5 The value of the digit 8 in the Hundred-thousands place. ☐ 800,000.

Fourth: **Arrange the following numbers in a descending order (Write the numbers using the Standard Form):**

The Order	Number	Standard Form
a	30,000,450	....
b	(3 X 1,000,000) + (4 X 100) + (5 X 1)	....
c	Three hundred million, four hundred fifty	....
d	50 + 400 + 3,000,000,000	....
e	30 million, 450 thousand	....

Fifth: **Write each of the following numerical forms in Standard Form, then estimate the number by the Front-end Estimation Strategy, then round the number to the nearest 100:**

Numerical Form	Standard Form	Front-end Estimation Strategy	To the Nearest 100
a) Five thousand, five hundred ninety nine	....	....	....
b) 4 thousand, 985	....	....	....
c) 90,000 + 400 + 30 + 2	....	....	....
d) (8 X 10) + (3 X 1)	....	....	....

General Exercises on Unit 2

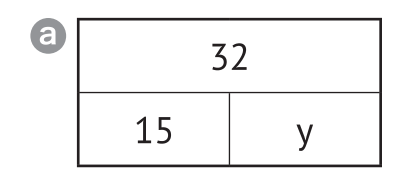
First: Choose the correct answer:

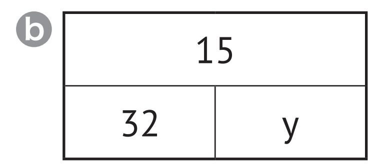
1. 25 + 152 = 152 + 25. (................ Property)
   - (a) Neutral Element
   - (b) Associative
   - (c) Commutative
   - (d) Distributive
2. 63 + (15 + 95) = (63 + 15) + 95. (................ Property)
   - (a) Neutral Element.
   - (b) Associative.
   - (c) Commutative.
   - (d) Distributive
3. 258 + 0 = 258. (................ Property)
   - (a) Neutral Element
   - (b) Associative
   - (c) Commutative
   - (d) Distributive
4. 456 + 998 = 454 + ...
   - (a) 999
   - (b) 990
   - (c) 1,000
   - (d) 996
5. 369 + 254 = ...
   - (a) 369 + 200 + 50 + 4
   - (b) 369 + 2 + 4 + 5
   - (c) 369 + 25 + 4
   - (d) 369 + 2 + 54
6. The equation that represents the following **Bar Model** is ....

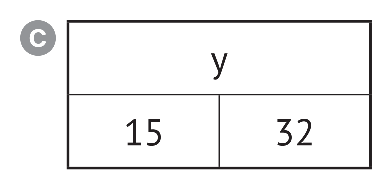
750	
χ	150

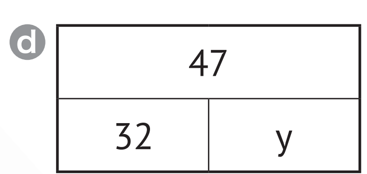
   - (a) $\chi + 120 = 750$
   - (b) $750 - \chi = 150$
   - (c) $\chi - 150 = 750$
   - (d) $\chi = 750 + 150$

7 The Bar Model that represents the following equation "**32 – y = 15**" is ....

ⓐ 

ⓑ 

ⓒ 

ⓓ 

8 158,456 + 252,234 = ...

ⓐ 300,780 ⓑ 410,690

ⓒ 300,690 ⓓ 790,410

9 If χ + 245 = 786, then χ = ...

ⓐ 245 + 786 ⓑ 786 – 245

ⓒ 245 + 541 ⓓ 786 – 541

10 If 452 – y = 152, then y = ...

ⓐ 452 + 152 ⓑ 152 + 200

ⓒ 452 – 152 ⓓ 452 – 200

Second: Complete the following:

1 45 + 21 = ... + 45 (.. *Property)*

2 (45 + 25) + 15 + ... = ... + (........................ + 15) + 13

(.. *Property)*

3 254 + ... = 254 (.. *Property)*

4 25,475 + 85,235 = ...

5 600,800 – 365,247 = ...

6 If $\chi + 258 = 500$, then χ = ...

7 If $458 + y = 600$, then y = ...

8 If $m - 524 = 214$, then m = ...

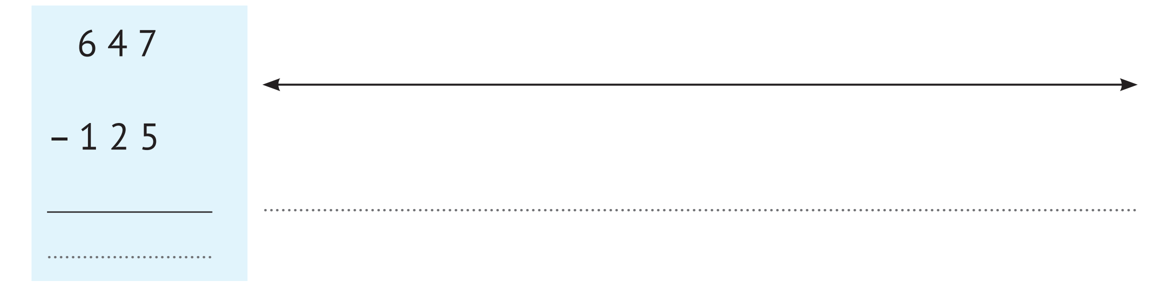
9 If $842 - z = 600$, then z = ...

10 If 2,456 + 3,375 = ... ≈ .... *(To the Nearest 1,000)*

Third: **Solve the following problems using the strategy shown. (Show your steps):**

Problem	Mental Math Strategy	Solution
1 64 + 49	Compensation Strategy	....
2 456 + 127	Composing and Decomposing Strategy	....
3 800 – 793	Counting Up Strategy (From the **smallest** number to the **largest** number):	....

Fourth: **Solve the following problem using the Countdown Strategy with Decomposition of Numbers:**



Fifth: **Solve the following problem using the Count-on Strategy with Decomposition of Numbers:**

```
  8 4 2
- 3 2 1
_______
.......
```

....

Sixth: **Answer the following:**

a) In one week **6,245** tourists visited the pyramids, and in the following week **5,375** tourists did.

How many total tourists visited the pyramids in the two weeks?

Bar Model:

Equation: ....

Solution: ....

....	
....	....

b) Sarah had **1,025** pounds. She bought a dress for **675** pounds.

How many pounds are left with Sarah?

Bar Model:

Equation: ....

Solution: ....

....	
....	....

c) A road with a length of **9,150 meters** was paved in three days, of which **345 meters** were paved on the first day and **290 meters** on the next day. How many meters were paved on the third day?

....

....

....

General Exercises on Unit 3

First: Choose the correct answer:

1. The best unit for measuring the **height** of a class is the ....
   - a) meter
   - b) centimeter
   - c) millimeter
   - d) kilometer

2. The best unit for measuring a dog's **mass** is ....
   - a) grams
   - b) centigrams
   - c) milligrams
   - d) kilograms

3. The best unit for measuring a car's fuel tank is ....
   - a) liters
   - b) centiliters
   - c) milliliters
   - d) dekaliters

4. The time is now 10:25, what time will it be in fifty minutes?

   ....
   - a) 10: 50
   - b) 10: 15
   - c) 11:25
   - d) 11:15

5. 120 **hours** = ... **days**.
   - a) 2
   - b) 6
   - c) 5
   - d) 12

6. The .... is one of the **gradient scales** that we see in our daily lives.
   - a) car
   - b) mobile phone
   - c) balance
   - d) calculator

7. The **height** of Cairo Tower is 198 meters. How high is it in centimeters? ....
   - a) 198 cm
   - b) 1,980 cm
   - c) 19,800 cm
   - d) 198,000 cm

8 If Shaima's weight is 65 kilograms and 500 grams, then her weight in grams = ...

(a) 565 gm
(b) 650,500 gm
(c) 65,000,500 gm
(d) 65,500 gm

9 "**20** to **3**", represented by the digital clock is [.......... : ....] .

(a) 3: 20
(b) 2: 40
(c) 2: 20
(d) 4: 20

10 If a fish tank contains 20 liters and 250 milliliters of water. The **volume** of water in the tank in milliliters is ....

(a) 20,250 ml
(b) 2,250 ml
(c) 25,020 ml
(d) 2,025 ml

Second: Complete the following:

1 10 **meters** and 25 **centimeters** = ... **centimeters**.

2 20,015 **meters** = ... **kilometers** and .... **meters**.

3 15,040 **grams** = ... **kilograms** and .... **grams**.

4 400,020 **milliliters** = ... **liters** and .... **milliliters**.

5 40 **hectometers =** .... **dekameters =** .... **meters**.

6 20,000 **centigrams** = ... **decigrams** = ... **grams**.

7 .... **dekaliters** = 500 **liters** = ... **deciliters**.

8 6 : 45 + 2 : 28 = ... : ....

9 8 : 00 − 7 : 37 = ... : ....

10 250 **minutes** = ... **hours** and .... **minutes**.

Third: Complete using (< , = or >):

1 7 weeks. [ ] 45 days.
2 3 days. [ ] 46 hours.
3 2 hours. [ ] 150 minutes.
4 4 minutes. [ ] 240 seconds.

Fourth: **Arrange the following lengths in an ascending order:**

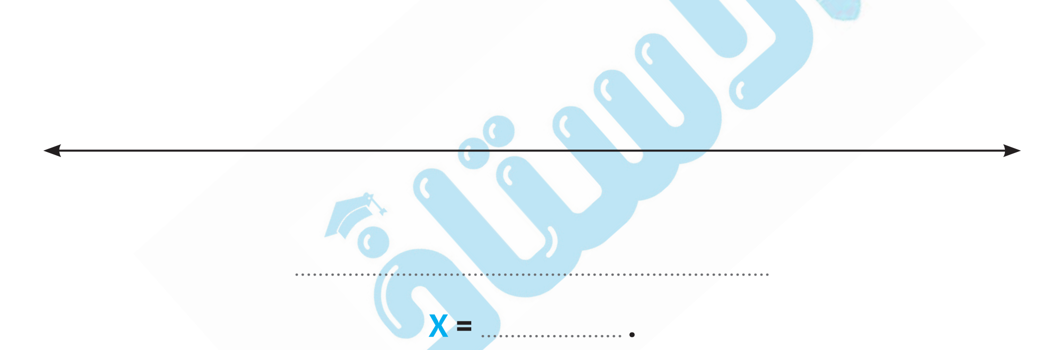
40 dekameters , 40 hectometers , 400 centimeters , 400 decimeters

The order : .... , ... , ... , ...

Fifth: **The following table shows the grades of a group of students in Mathematics:**

Marks	15	16	17	18	19	20
Number of Students	3	4	6	2	4	5

Use the previous table to represent the data with a Line Plot:



X = ...

Sixth: **Salah trains in Football for two hours and 30 minutes. If Salah goes to training three days a week, how many minutes does Salah spend in training per day?**
And how many minutes does Salah spend in training per week?

....

....

....

General Exercises on Unit 4

First: Choose the correct answer:

1. A rectangle of 8 cm length and 6 cm width, its **perimeter** is .... cm.
   - a) 8 + 6 + 8 + 6
   - b) 8 X 6 X 8 X 6
   - c) 8 X 6 X 2
   - d) 8 + 6 + 2
2. A rectangle has a length of 9 cm and a width one third of its length, then its **area** = ... cm^2.
   - a) 12
   - b) 27
   - c) 24
   - d) 36
3. A square has an area of 64 cm^2, then its **perimeter** = ... cm.
   - a) 8
   - b) 16
   - c) 32
   - d) 64
4. A square has a perimeter of 28 cm, then its **area** = ... cm^2.
   - a) 49
   - b) 14
   - c) 7
   - d) 21
5. A rectangle has a perimeter of 24 cm and a length of 9 cm, then its **area** is .... cm^2.
   - a) 3
   - b) 31
   - c) 12
   - d) 27
6. Which of the following is a formula for the **perimeter of the rectangle**?
   - a) P = L + W + 2
   - b) P = (L X W) X 2
   - c) P = (L X 2) + (W X 2)
   - d) P = (L X W) + 2
7. Which of the following is a formula for the **perimeter of the rectangle**?
   - a) P = L + W + L + W
   - b) P = L X 2 X W X 2
   - c) P = (L + 2) X (W + 2)
   - d) P = (L + W) + 2

8 Which of the following is a formula for the **area of the rectangle**?

a A = L X W
b A = L X W X 2
c A = L + W
d A = L + W + 2

9 The area of a rectangle whose length is 9 cm and its width is 4 cm is **equal** to the area of the square whose **perimeter** is .... cm.

a 24
b 36
c 13
d 18

10 The perimeter of a square whose area is 25 cm^2 is equal to the perimeter of a rectangle whose **dimensions** are ....

a 12 cm, 13 cm
b 8 cm, 12 cm
c 6 cm, 4 cm
d 5 cm, 5 cm

Second: Complete the following:

1 A rectangle of 15 m length and 10 m width, its **perimeter** is ....

2 A square has a 6 cm side length, its **perimeter** is ....

3 A square whose sides are 7 mm has a **surface area** of .... mm^2.

4 A rectangle has a length of 8 cm and a width of 4 cm. Its **surface area** is .... cm^2.

5 A rectangle has a perimeter of 18 cm and a length of 7 cm , then its **area** is .... cm^2.

6 A rectangle has an area of 72 cm^2 and a width of 8 cm, then its **perimeter** is ....

7 A square has a perimeter of 36 cm, the **length** of its side is .... cm.

8 A square has an area of 36 cm^2, the **length** of its side is .... cm.

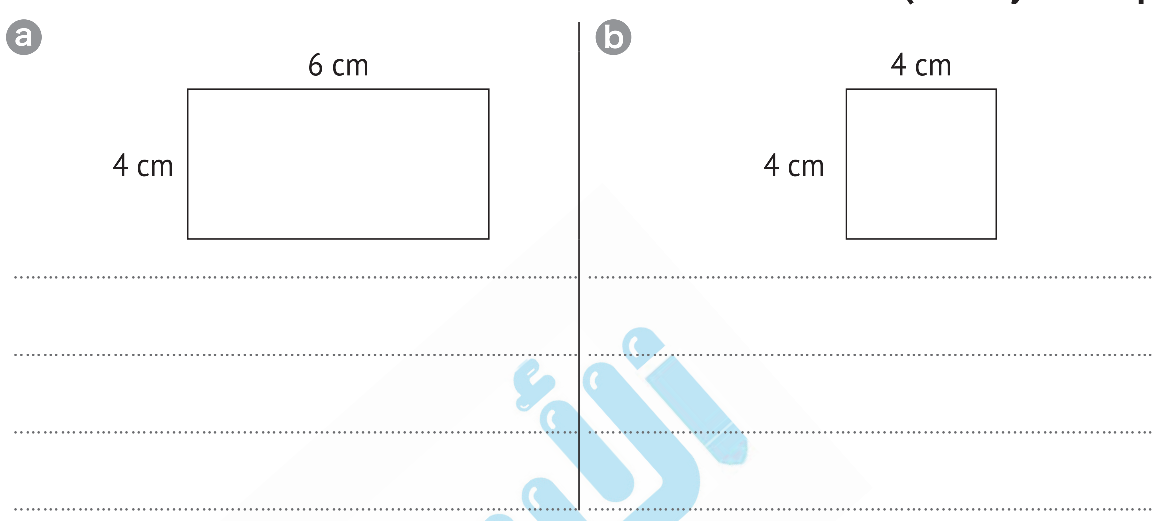
9 A square has a perimeter of 16 cm, so its **area** is .... cm^2.

10 A square has an area of 64 cm^2, then its **perimeter** is .... cm.

Third: Answer the following:

1 Calculate the area and perimeter of each of the following shapes:

(Show your steps)

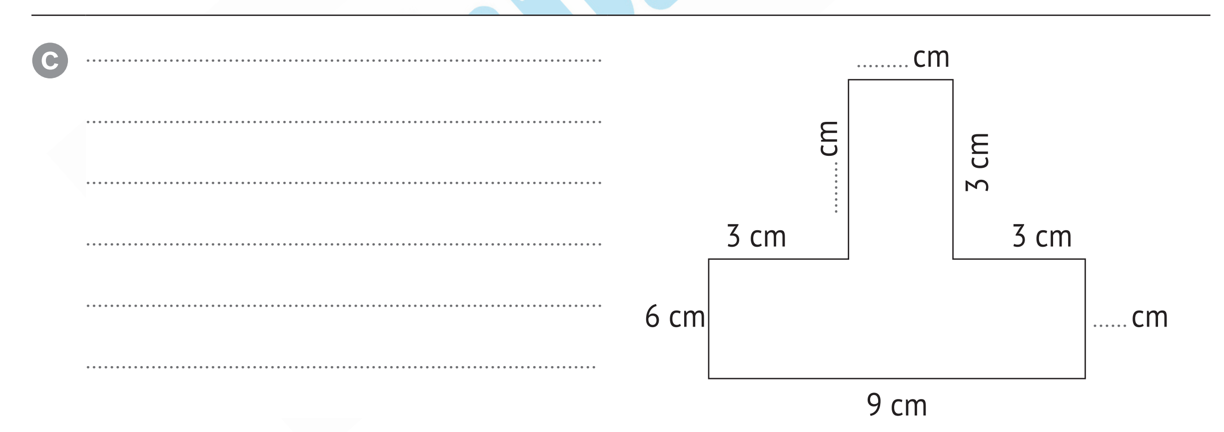


....

....

....

....



....

....

....

....

....

....

2 The length of Fatima's rectangular garden is three times its width. If (W) is the width, write an equation that can represent the perimeter of Fatima's garden?

....

....

3 Adam has a rectangular computer keyboard that is 40 cm long and 15 cm wide. How can Adam calculate the perimeter of the keyboard?

....

....



General Exercises on Unit 5

First: Choose the correct answer:

1 To compare between 6 and 18: ....

ⓐ 18 equals six times 6
ⓑ 18 equals six times 3
ⓒ 18 equals triple 6
ⓓ 18 equals triple 3

2 8 + 8 + 8 + 8 + 8 = ...

ⓐ 8 X 8
ⓑ 8 + 8
ⓒ 8 + 5
ⓓ 8 X 5

3 6 X 4 = ...

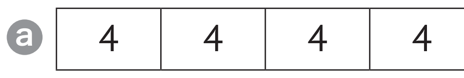
ⓐ 6 + 6 + 6 + 6
ⓑ 6 X 6 X 6 X 6
ⓒ 4 + 4 + 4 + 4
ⓓ 4 X 4 X 4

4 The opposite **Strip Diagram** represents: ....

7	7	7	7	7

ⓐ 35 equals seven times 7
ⓑ 35 equals five times 7
ⓒ 35 equals seven times 5
ⓓ 35 equals five times 5

5 The **Strip Diagram** that represents **"12 equals triple 4"** is ....

ⓐ


ⓑ

3	3	3	3

ⓒ

3	3	3

ⓓ

4	4	4

6 The equation that represents "**28 equals four times** n" is ....

ⓐ 28 = 4n
ⓑ 28n = 4
ⓒ 28 = 4 + n
ⓓ 28 – n = 4

7 If 8 X 5 = a X 8, then a = ...

ⓐ 40 ⓑ 8
ⓒ 5 ⓓ 64

8 200 X .... = 10,000.

ⓐ 5 ⓑ 50
ⓒ 500 ⓓ 5,000

9 8 X 5 X 4 = (8 X 5) X 4 = ... X 4.

ⓐ 40 ⓑ 8
ⓒ 20 ⓓ 10

10 8 X 500 = 40 X ....

ⓐ 5 ⓑ 100
ⓒ 10 ⓓ 1,000

Second: Complete the following:

1 4 + 4 + 4 + 4 + 4 + 4 = 3 X ....

2 9 X 3 = ... + ... + ...

3 The equation that represents "**36 equals four times** n" is ....

....

4 If 5X = 35, then X = ...

5 20 X 50 = 50 X ....

6 .... = 80 X 500.

7 600 X .... = 30,000.

8 (5 X 8) X 6 = ... X .... = ...

9 6 X 30 = 18 X .... = ...

10 9 X .... = 36 X 100 = ...

Third: **Compare between each two numbers:**

1. **48** and **6** ⇨ 48 .... 6.
2. **36** and **9** ⇨ 36 .... 9.
3. **21** and **7** ⇨ 21 .... 7.
4. **15** and **3** ⇨ 15 .... 3.
5. **45** and **5** ⇨ 45 .... 5.

Fourth: **Complete each of the following using the Strip Diagrams:**

1. .... is .... times ....

7	7	7	7	7

2. .... is .... times ....

5	5

3. .... is .... times ....

2	2	2	2	2	2	2	2

4. .... is .... times ....

3	3	3	3

5. .... is .... times ....

9	9	9

Fifth: **Write an equation for the following comparisons:**
(Use symbols to represent the unknowns, then find their values):

1. The number m equals eight times the number 6.

Equation : ....

Solution : ....

2. The number **24** equals eight times the number n.

Equation : ....

Solution : ....

3. The number **21** equals a times the number **3**.

Equation : ....

Solution : ....

4 The number x equals six times the number 7.

Equation : ....

Solution : ....

Sixth: Answer the following:

ⓐ **Mahmoud has 20 crayons, which is 5 times the number of crayons that Hazem has. How many crayons are there with Hazem?**
(Write a multiplication equation representing this problem and then solve it).

....

....

....

ⓑ Nader has 12 oranges.
Write an equation using the Commutative Property of Multiplication to describe two ways in which he can arrange the oranges.

....

....

....

ⓒ **Use the Associative Property in the multiplication to calculate the number of marbles in the picture:**

....

....

....

General Exercises on Unit 6

First: Choose the correct answer:

1 The number of **factors** of 16 are ....

a 3 b 4 c 5 d 6

2 The number 17 is a **prime** number because ....

a it has one factor only
b it has two factors only
c it has no factors
d it has more than two factors

3 The number that has the **factors** (1 , 2 , 3 , 4 , 6 , 8 , 12 , 24) is ....

a 8 b 12 c 24 d 36

4 The **smallest odd** prime number is ....

a 0 b 1 c 2 d 3

5 The **greatest common factor** of 24 and 36 is ....

a 6 b 12 c 4 d 3

6 .... is a **common multiple** of 8 and 6.

a 12 b 16 c 48 d 36

7 If 6 X 8 = 48, then ....

a 48 is a multiple of 6 and 8
b 48 is a factor of 6
c 48 is a sum for 6 and 8
d 6 is a factor of 8

8 .... is an **odd** number and a **multiple** of the two numbers 5 and 7.

a 70 b 49 c 35 d 25

9 .... is an **even** number and a **multiple** of the two numbers 5 and 3.

a 15 b 45 c 60 d 50

10 .... is an **even** number, and (2 , 3 , 6 , 9) are of its **factors**.

a 30 b 24 c 45 d 36

Second: Complete the following:

1. The **factors** of 14 are .... , ... , ... , ...
2. The **smallest odd** prime number is ....
3. The **prime numbers** between 20 and 40 are .... , ... , ... and ....
4. The number that has **only two factors** is called a .... number.
5. The **smallest** two-digit-prime-number is ....
6. Number (2) is a factor of a number if the **Ones** digit of this number is ....
7. Multiples of 6 up to 20 are ....
8. The **common multiples** of 4 and 6 between 20 and 50 are ....
9. The relationship between the numbers 5, 6 and 30 is that the number 30 is a .... for the numbers 5 and 6.
10. .... is a prime number whose the sum of its factors is 8.

Third: Find the Greatest Common Factor for 40 , 32:

The factors of number **40**:

....

The factors of number **32**:

....

The **common factors** are: ....

The **Greatest Common Factor** (G. C. F.) is: ....

Fourth: **Find the multiples of each of the numbers 6 and 8, up to 50, then find the common multiples between them:**

The **multiples** of 6 are: ....

The **multiples** of 8 are: ....

The **common multiples** of the two numbers are: ....

Fifth: There is an alarm that rings every **3** hours and another alarm that rings every **two** hours. If they ring together at **12:00**, when will they ring again together? (Show your steps)

....

....

....

....

....

Sixth: Hana has **12** red balloons, **18** blue balloons, and **24** white balloons. Hana wants to form **equal groups** of balloons, so that all groups contain the same number of balloons of different colors.

How many groups can be formed?

How many balloons of each color are in each group?

....

....

....

....

....

General Exercises on Unit 7

First: Choose the correct answer:

1 The **Rectangle Area Model** that represents "**23 X 8**" is ....

a

	2	3	
	8 X 2 = 16	8 X 3 = 24	8

b

	20	3	
	80 X 20 = 1,600	80 X 3 = 240	80

c

	2	30	
	8 X 2 = 16	8 X 30 = 240	8

d

	20	3	
	8 X 20 = 160	8 X 3 = 24	80

2 4 X (200 + 30 + 5) = 4 X ....

a 235 b 10

c 523 d 940

3 (5 X 7) + (5 X 30) + (40 X 7) + (40 X 30) = ... X ....

a 57 X 43 b 45 X 37

c 47 X 35 d 43 X 75

4 (8 X 6) + (8 X 20) + (8 X 100) = ... X ....

a 8 X 621 b 8 X 18

c 8 X 126 d 8 X 62,000

5 62 X 50 = ...

a (60 X 50) + (2 X 50) b (6 + 2) X 50

c 60 + 2 + 50 d 60 X 2 X 50

6 The opposite **Rectangle Area Model** represents: ....

X	20	5
30	30 X 20	30 X 5
2	2 X 20	2 X 5

a 52 X 23 b 25 X 23

c 32 X 52 d 25 X 32

7 The quotient of (157 ÷ 5) is between .... and ....

ⓐ 0 and 100
ⓑ 100 and 200
ⓒ 200 and 300
ⓓ 300 and 400

8 The number of digits of the quotient of (2,542 ÷ 6) is ....

ⓐ 1
ⓑ 2
ⓒ 3
ⓓ 4

9 The number which if divided by 7, the quotient is 24 and the remainder 3 is ....

ⓐ 168
ⓑ 171
ⓒ 72
ⓓ 165

10 The area of a rectangle is 104 cm^2 and its width is 8 cm, then its **length** is .... cm.

ⓐ 13
ⓑ 44
ⓒ 832
ⓓ 26

Second: Complete the following:

1 4,257 = 4,000 + 200 + ... + ...

2 80 X 900 = ...

3 If 8 X 5 = 40, then 40,000 ÷ 8 = ...

4 6 X .... = 30,000.

5 The number which if divided by 8, the quotient will be 200 is ....

6 The estimation of 32 X 24 is .... X .... = ...

7 The remainder of (49 ÷ 6) is ....

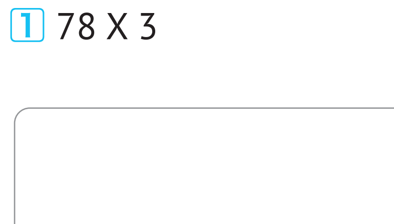
8 75 = (12 X ....) + 3.

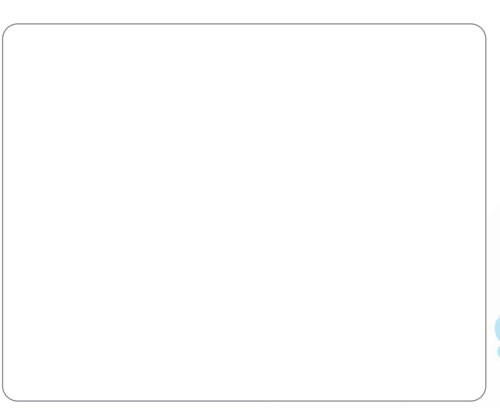
9 The quotient (945 ÷ 4) is between .... and ....

10 800 X 30 = 24 X ....

Third: **Use the Rectangle Area Model Strategy to solve the following problems:**

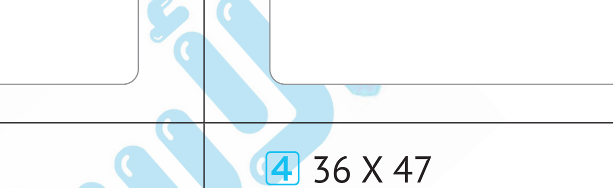
1 78 X 3



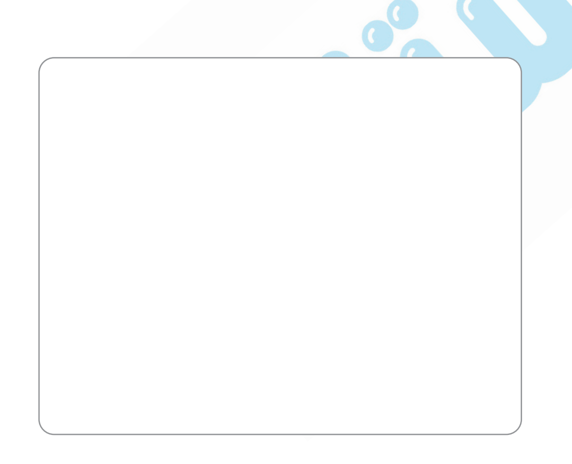


2 8 X 245

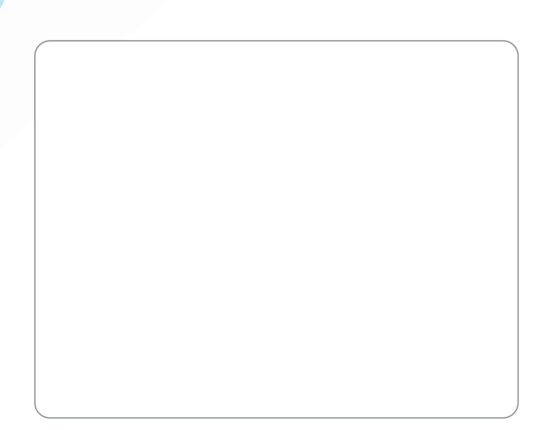




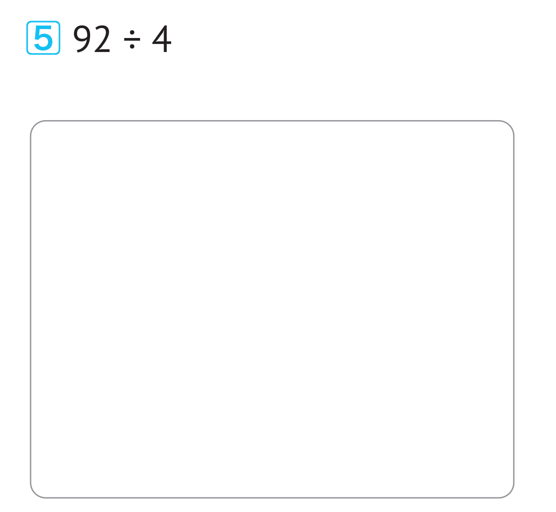
3 40 X 234



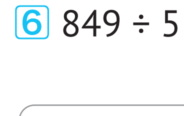
4 36 X 47



5 92 ÷ 4

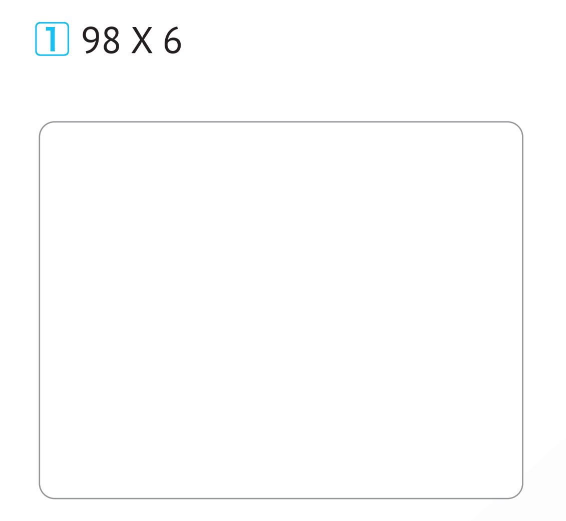


6 849 ÷ 5



Fourth: Use the **Multiplication/Division Partial Algorithm** to solve the following problems:

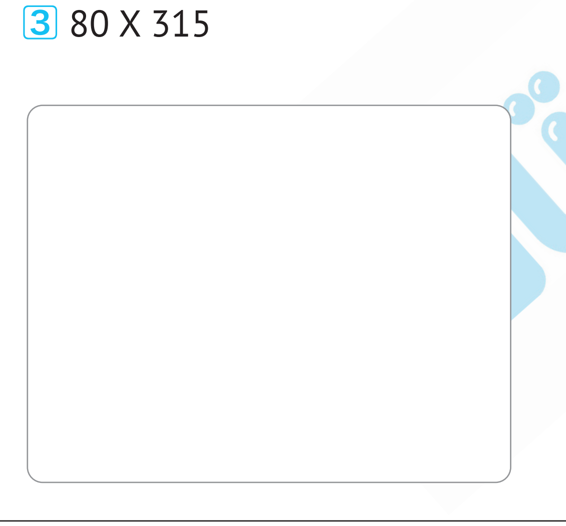
1 98 X 6





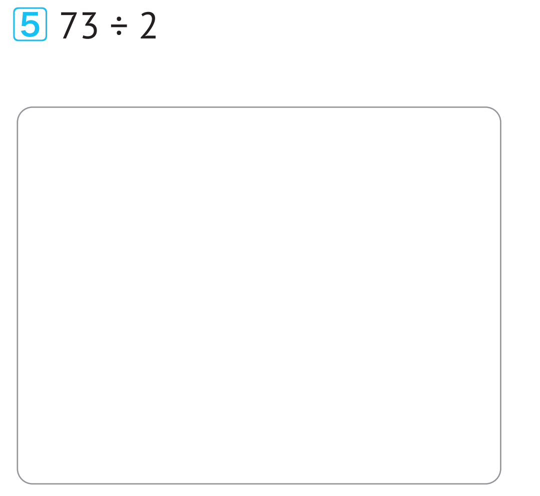
2 145 X 7

3 80 X 315



4 78 X 29

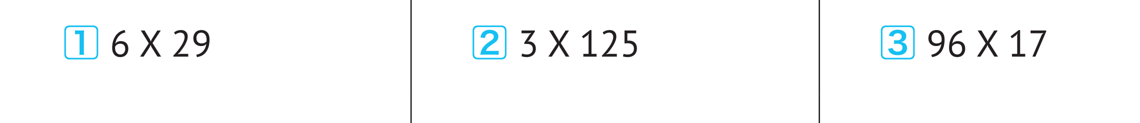
5 73 ÷ 2





6 1,125 ÷ 5

Fifth: Use the **Standard Multiplication/Division Algorithm** to solve the following problems:



1. 6 X 29
2. 3 X 125
3. 96 X 17
4. 84 ÷ 6
5. 981 ÷ 9
6. 2,436 ÷ 4

Sixth: Use the **Distributive Property** to solve the following problems:

1. 7 X 45 = 7 X (.............. + ...) = (.............. X ....) + (.............. X ....)

   = ... + ... = ...

2. 5 X 145 = 5 X (.................... + ... + ...)

   = (.............. X ....) + (.............. X ....) + (.............. X ....)

   = ... + ... + ... = ...

3 8 X 2,543 = 8 X (.................... + ... + ... + ...)

= (........ X ....) + (........ X ....) + (........ X ....) + (........ X ....)

= .... + ... + ... + ... = ...

Seventh: **Answer the following using the appropriate strategy:**

a The school bus can accommodate **45** students. If the school has **5** buses, and each bus makes **two** trips in the morning, how many students can be transported by all buses in the two trips?

....

....

....

b Ahmed bought a car for **290,000** pounds, of which he paid **80,000** pounds as a down-payment, and the rest of the car's price will be paid in **7 equal** installments. How much is one installment?

....

....

....

c May has **31** days. How many hours are there in this month?

....

....

....

d A charity association wants to distribute **3,168** pounds among **8** people. How much is the share of one person?

....

....

....

General Exercises

General Exercises on Unit 1

First

1 (c) 2 (c) 3 (a)
4 (a) 5 (d) 6 (b)
7 (b) 8 (b)
9 (b) 10 (b)

Second

1 Hundred-millions 2 987,430
3 Two billion, seven million, Two hundred twenty five thousand, one hundred two.
4 Ten-millions. 5 Thousands.
6 3,050,000.
7 1,000,000 – 100,000 – 1,000 – 10 – 1.
8 9,705,030,006. 9 650,000. 10 44,500.

Third

1 < 2 < 3 >
4 < 5 =

Fourth

The Order	Standard form
3	30,000,450
1	3,000,405
4	300,000,450
5	3,000,000,450
3	30,450,000

Fifth

a 5,599 , 5,000 , 5,600.
b 4,985 , 4,000 , 5,000.
c 90,432 , 90,000 , 90,400.
d 83 , 80 , 100

General Exercises on Unit 2

First

1 (c) 2 (b) 3 (a)
4 (c) 5 (a) 6 (b)
7 (a) 8 (b)
9 (b) 10 (c)

Second

1 21 , Commutative. 2 13 , 45 , 25 , Associative.
3 0 , Neutral Element.
4 110,710. 5 235,553. 6 242.
7 142. 8 738. 9 242.
10 $5,831 \approx 6,000$.

Third

1 63 + 50 = 113
2 456 + 100 + 20 + 7
= 556 + 20 + 7
= 576 + 7 = 583
3 7

Fourth

552

Fifth

521

Sixth

a $\chi = 6,245 + 5,375$
$\chi = 11,620$
b $\chi = 1,025 - 675$
$\chi = 350$
c 345 + 290 = 635 m.
9,150 – 635 = 8,515 m.

General Exercises on Unit 3

First

1. (a)
2. (d)
3. (a)
4. (d)
5. (c)
6. (c)
7. (c)
8. (d)
9. (b)
10. (a)

Second

1. 1,025
2. 20 , 15
3. 15 , 40
4. 400 , 20.
5. 400 , 4,000.
6. 2,000 , 200.
7. 50 , 5,000.
8. 9 : 13
9. 00 : 23
10. 4 , 10

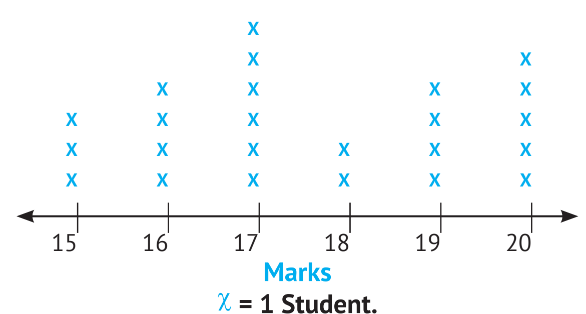
Third

1. <
2. >
3. <
4. =

Fourth

400 cm , 400 dm , 40 dekameters , 40 hectometers.

Fifth



Sixth

120 + 30 = 150 minutes.

150 + 150 + 150 = 450 minutes.

General Exercises on Unit 4

First

1. (a)
2. (b)
3. (c)
4. (a)
5. (d)
6. (c)
7. (a)
8. (a)
9. (a)
10. (c)

Second

1. 50 m.
2. 24 m.
3. 49
4. 32
5. 14
6. 34
7. 9
8. 6
9. 16
10. 32

Third

1. (a) A = 24 cm^2 , P = 20 cm.
   (b) A = 16 cm^2 , P = 16 cm.
   (c) A = 81 cm^2 , P = 40 cm.
2. P = 3 X w + w + 3 X w + w
   = 8 X w
3. P = (40 + 15) X 2
   = 110 cm.

General Exercises on Unit 5

First

1 (c) 2 (d) 3 (a)
4 (b) 5 (d) 6 (a)
7 (c) 8 (b)
9 (a) 10 (b)

Second

1 8 2 9 + 9 + 9 3 36 = 4n
4 7 5 20 6 40,000
7 50 8 40 X 6 = 240 9 10 , 180
10 400 , 3,600

Third

1 eight times. 2 four times.
3 three times. 4 five times.
5 nine times.

Fourth

1 35 , 5 , 7 2 10 , 2 , 5
3 16 , 8 , 2 4 12 , 4 , 3
5 27 , 3 , 9

Fifth

1 m = 8 X 6
m = 48.
2 24 = 8 m
m = 24 ÷ 8 = 3.
3 21 = a X 3
a = 21 ÷ 3 = 7.
4 χ = 6 X 7
χ = 42.

Sixth

a 20 = 5χ
χ = 20 ÷ 5
= 4 crayons.
b 3 X 4 = 4 X 3
2 X 6 = 6 X 2
c 3 X 5 X 2 = 3 X (5 X 2)
= 3 X 10 = 30

General Exercises on Unit 6

First

1 (c) 2 (b) 3 (c)
4 (d) 5 (b) 6 (c)
7 (a) 8 (c)
9 (c) 10 (d)

Second

1 1 , 2 , 7 , 14 2 3
3 23 , 29 , 31 , 37 4 prime. 5 11
6 0 , 2 , 4 , 6 or 8 7 0 , 6 , 12 , 18
8 24 , 36 , 48 9 multiple. 10 7

Third

(G.C.F.) = 8.

Fourth

Common multiples are: 0 , 24 , 48.

Fifth

6 o'clock.

Sixth

(G.C.F.) of (12, 18, 24) is 6.
Red balloons = 12 ÷ 6 = 2
Blue balloons = 18 ÷ 6 = 3
White balloons = 24 ÷ 6 = 4

General Exercises on Unit 7

First

1. (d)
2. (a)
3. (b)
4. (c)
5. (a)
6. (d)
7. (a)
8. (c)
9. (b)
10. (a)

Second

1. 50 , 7
2. 72,000
3. 5,000
4. 5,000
5. 1,600
6. 30 X 20 = 600
7. 1
8. 6
9. 200 , 300
10. 1,000

Third

1. 234
2. 1,960
3. 9,360
4. 1,692
5. 23
6. 169 R4

Fourth

1. 588
2. 1,015
3. 25,200
4. 2,262
5. 36
6. 225

Fifth

1. 174
2. 375
3. 1,632
4. 14
5. 109
6. 609

Sixth

1. 315
2. 725
3. 20,344

Seventh

a) 45 X 5 X 2
= 45 X (5 X 2)
= 45 X 10 = 450 students.

b) 290,000 – 80,000
= 210,000 pounds.
210,000 ÷ 7 = 30,000 pounds.

c) 31 X 24 = 744 hours.

d) 3,168 ÷ 8 = 396 pounds.

Revision

(1) The value and place value :

Number	value	place value
2<u>5</u>3,463	50,000	Ten Thousand

(2) The forms of numbers

* standard form such as 430,502

* The word form four hundred thirty thousand and five hundred two

* Expand form : 2 + 500 + 30000 + 400000

(3) Multiplying by zero and 1

* 0 × any number = 0

* 1 × any number = its self

(4) Units of measuring length

*1m = 100 cm

*1 cm = 10 mm

(5) Perimeter, the length of line around the figure

* Perimeter of triangle = sum of its side lengths

* Perimeter of square = side length × 4

* Perimeter of rectangle = (length + width) × 2

(6) Area : the number of square unit forming figure

* Area of square = side length × side width

* Area of rectangle = length × width

(7) Multiple and factors

* Multiple of (2) is : 0 , 2 , 4 , 6 , 8 , 10 , 12 , ...

* Multiple of (3) is : 0 , 3 , 6 , 9 , 12 , 15 , 18 , ...

* Multiple of (5) is : 0 , 5 , 10 , 15 , 20 , 25 , 30 , ...

* Multiple of (10) is : 0 , 10 , 20 , 30 , 40 , 50 , 60 , ...

Note that

- Zero is common multiple of all numbers
- Factors of (3) : 3 × 1 ⟷ 1 × 3
- Factors of (12) : 1 × 12 ⟷ 3 × 4 ⟷ 6 × 2

* One is common factor of all numbers

(1) The digit as 0 , 1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9

(2) The number formed from digit or more as : 6 , 9 , 3 , 4 , 5 , 6,517

(3) Numeral as 3 , 49 , twelve , ... four hundreds

(4) Estimation as	423	400
	562	500
(5) Rounding as	126	100 nearest hundred
	36,873	37000 nearest 1000

Q1: Complete:

(1) 10 times of ten thousand is ....

(2) 9 in tens is ....

(3) 50 thousands = ...

(4) 80 millions = ... thousand

(5) 7, 607 , 563 , 100 = ... milliard + ... million + ...

thousand + ...

(6) Place value of zero in 604321 is ....

(7) 5, 707 $\longrightarrow$ .... (Estimate)

(8) The place value of digit 5 in 350 , 678 , 102 = ...

(9) (5 tens and 8 ones) × 10 = ...

(10) 5,832 ≈ .... (to the nearest thousand)

Q2: Compare and put < , > or = :

(1) 22,999 ☐ 23,410 (2) 101,345 ☐ 111,223

(3) 4,891 ☐ 4890 (4) 25,321 ☐ 25 thousand , 321

Q3:

(a) Use the following numbers to find the greatest and the smallest numbers

(2 , 8 , 0 , 4 , 6)

The greatest:.....................

The smallest : ....

(b) Convert to the expanded form

89 million , 645 thousand , 840

....

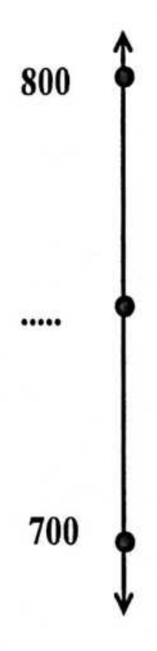
(c) Use any strategy to find the result of the following

(1) 684 + 486 = ...

(2) 752 – 189 = ...

Q4: Find by using midpoint strategy :

723 (to nearest hundred) ≈ ....



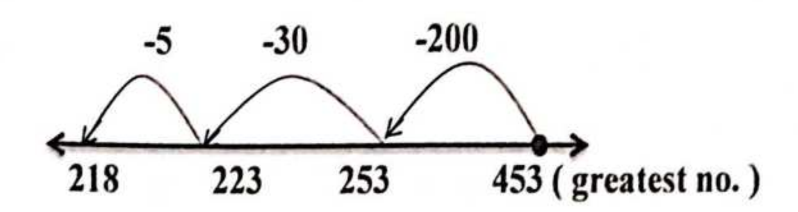
Unit (2)

Addition and subtraction strategies

Subtraction strategy :

(1) 453 – 235

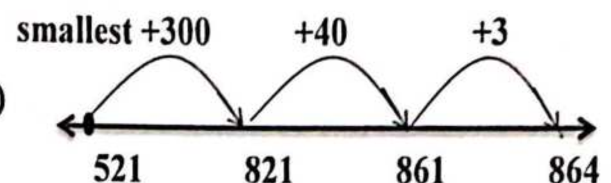
200 + 3 + 5



(2) 864 – 521

The result (3 + 40 + 300)

= 343



Q1: Find the result (using the given strategy)

(1) 1420 + 230 = ... (Rounding)

(2) 6433 – 501 = ... (Estimating)

(3) 199 + 35 = ... (compensate.)

(4) 368 – 118 = ... (compensate.)

(5) 902 – 899 = ... (counting up)

(6) 2549 – 1367 = ... (counting up .)

(7) 6748 – 3141 = ... (counting back.)

(8) 71921 + 1012 = ... (Add to subtract.)

Q2: Use the Bar Models to find X :

(1) X + 3 = 7

(2) X – 2 = 9

(3) 3 + 9 = X

(4) 19 – X = 5

Q3: Complete:

(1) 2 + ... = 2 (.................property)

(2) 131 + 123 = 123 + ... (................. property)

(3) (169 + 11) + 23 = ... + ... = ...(...............property)

Q4: Find the result by regrouping:

(1)
```
  21671
+ 4012
-------
... ... ... ...
```

(2)
```
  41231
+ 96131
-------
... ... ... ...
```

(3) 911231 + 1467 = ...

(4) 897410 – 19865 = ...

(5)
```
  17461
- 5612
-------
... ... ... ...
```

Q5: Story problems:

Ali bought a shirt for 260 L.E, trousers for 430 L.E and a shoes for 330 L.E If Ali has 1300 pounds, find the remaining money with Ali.

....

Unit (3)

(1) Units of measuring length

Km $\underset{\div 10}{\overset{\times 10}{\rightleftarrows}}$ H .m $\underset{\div 10}{\overset{\times 10}{\rightleftarrows}}$ Deca .m $\underset{\div 10}{\overset{\times 10}{\rightleftarrows}}$ m $\underset{\div 10}{\overset{\times 10}{\rightleftarrows}}$ Decim. $\underset{\div 10}{\overset{\times 10}{\rightleftarrows}}$

Cm $\underset{\div 10}{\overset{\times 10}{\rightleftarrows}}$ mm

(2) Units of measuring weight

Ton $\underset{\div 1000}{\overset{\times 1000}{\rightleftarrows}}$ k.g $\underset{\div 10}{\overset{\times 10}{\rightleftarrows}}$ H.gm $\underset{\div 10}{\overset{\times 10}{\rightleftarrows}}$ Deca.gm $\underset{\div 10}{\overset{\times 10}{\rightleftarrows}}$ gm

(3) Capacity

Letter $\underset{\div 1000}{\overset{\times 1000}{\rightleftarrows}}$ m.l

---

Q1: Complete:

(1)

140 cm	
.... m	.... cm

3,591 kg	
.... gm	.... km

(2) 300 cm = ... m = ... dm

(3) 5m = ... cm = ... mm

(4) 8261 kilogram = ... kilogram , ... gram

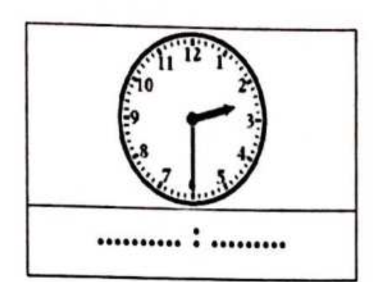
(5) 7,008 kiloliter = ... kiloliter , ... liter

(6) 3 days , 24 hours = ... hours

(7) 3 weeks , 3 days = ... days

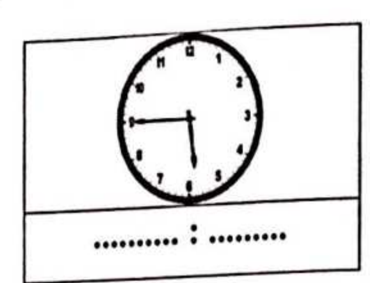
(8) 5 minutes , 12 seconds = ... seconds

(9)



.... : ....

(10)



.... : ....

Q2: Story problems

Yara starts the basketball training at 8 : 45 o'clock and she take one hour and 25 minutes in her training. When she finish the training ?

The time which she finished : ....

Q3: Subtract :

(1) 9 hours : 20 minutes – 5 hours : 45 minutes = ...

Q4: Choose the correct answer:

(1) 3 hours = ... minutes (30 , 60 , 90 , 180)

(2) 7 kg m and 300 gm = ...

(7,30 gm , 7300 gm , 73 kg , 3,700 gm)

(3) 3m + 520cm = ... cm (820 , 82 , 8200 , 90)

(4) 725 Tons = ... kg m (7250 , 72500 , 725000 , 1000)

(5) $\frac{1}{2}$ of a day = ... hours (12 , 6 , 3 , 24)

(6) Two weeks and 7 days = ... days (15, 21, 24, 30)

(7) Litre = ... mililitre (10, 100, 1000, 10000)

(8) 1 hour and half = ... minutes (45, 90, 75, 60)

(9) The capacity of a cub of tea, approximately equal ....

(100 L, 200 L, 200 m.l, 20 L)

(10) One of units of measuring length is .... (meter, kg m, Ton, liter)

Unit (4)

(1) Rectangle : is Quadrilateral figure that has

(a) every two opposite sides equal in length and parallel.

* Perimeter of rectangle = sum of its sides length

(length + width + length + width)

=(2 × length + 2 × width) = 2(length+ width)

* Area of rectangle : the number of square units forming figure

(length × width)

(2) Square: is Quadrilateral figure all sides equal in length

* Perimeter of square : sum of its sides lengths side= length × 4

(3) Find missing dimension of rectangle

Length of rectangle = (perimeter ÷ 2) – width

Width of rectangle = (perimeter ÷ 2) – length

(4) Find side length of square

Length = perimeter ÷ 4

Length = the number if multiply by itself given area

Q1: Choose the correct answer :

(1) Which of the following perimeter of rectangle ....

(length × width , (length + width)x2 , 2 × length , 2 × width)

(2) Rectangle its length 7cm and width 5cm then its perimeter .... cm (13, 3.5, 24)

(3) Square its side length 6 cm then its perimeter .... cm (18 , 3.6 , 24)

(4) The area of rectangle = ... (L × w , L – w , L + w)

(5) The side length of square 7 mm then its area = ... mm^2 (28 , 49 , 14)

(6) Rectangle its length 8 cm and its width 4 cm then its area = ... cm^2 (24, 12, 32)

(7) Rectangle its perimeter 60 cm and its length 20 cm then its width ... (3, 10, 40)

(8) Square its perimeter 40 cm then its side length = ... cm (9 , 10 , 20)

(9) Square its area 36 cm^2 then its side length = ... cm (18 , 6 , 9)

(10) The perimeter of square = L × .... (4 , 2 , 3)

Q2: Complete:

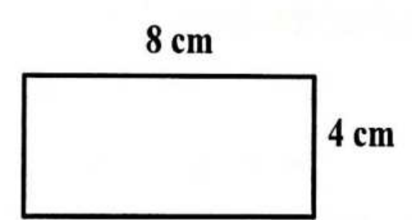
(1) Rectangle its length 5 cm and width 3 cm then its perimeter = ...

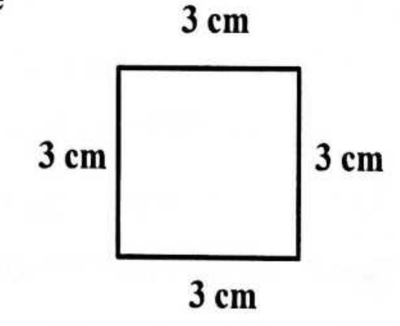
(2) Square its side length 6 cm then its perimeter = ...

(3) Area of square = ... × ....

(4) Area of rectangle = (L + ...) × 2

(5) Find the area and perimeter of following figure





The perimeter = ... The perimeter = ...

The area = ... The area = ...

Unit (5)

Q1: Choose the correct answer:

(1) The multiplicative identity is .... (0 , 1 , 10 , 100)

(2) 999 × 0 = ... (0 , 1 , 999 , 1000)

(3) 6 + 6 + 6 = 6 × .... (6 , 12 , 3 , 4)

(4) 5 times of number 4 = ... (5 , 4 , 9 , 20)

(5) 6 × 100 = ... (6 , 60 , 600 , 6000)

(6) 8 × 30 = ... (30 , 24 , 300 , 240)

(7) If 5 × 3 = a , then a equals 5 times of......... (3 , 5 , 8 , 35)

(8) (4 × 5) × .... = 4 × (5 × 9) (9 , 5 , 4 , 45)

(9) 50 × 7 = ... (50 , 7 , 350 , 3500)

Q2: Complete:

(1) 100 × 5 = ...

(2) .... × 9 = 90

(3) 9 × 0 = 0 (..................property)

(4) (2 × 3) × 4 = 2 × (3 × 4) (.................. property)

(5) 7 × 3 = 3 × 7 (.................property)

Q3: Story problems

(a) Hany bought 100 pieces of cake for a party , if the price of one piece 15 L.E . How much money did Hany pay ?

....

(b) 6 friends bought 2 balloons each in one day , then How many balloons they will buy in a week ?

....

(1) One is common multiple for all numbers .
(2) One is common factor between two prime numbers .
(3) Multiple of numbers is product of multiply number by (0 , 1 , 2 , 3 , 4 , ...)
(4) Zero is common multiple of all number except itself .
(5) The product of any two numbers is one of common multiple for them .

Q1: Choose the correct answer:

(1) The common factors of all numbers .... (6 , 4 , 3 , 1)
(2) The smallest prime number .... (0 , 1 , 2 , 3)
(3) The smallest odd prime number .... (0 , 1 , 2 , 3)
(4) The number 24 one of its factor .... (2 , 5 , 10 , all of them)
(5) The highest common factor between 5 , 7 is .... (1 , 2 , 5 , 35)
(6) The prime number just after 11 is .... (12 , 13 , 14 , 19)
(7) The number .... is multiple of 6 (1 , 12 , 16 , 28)
(8) The number 27 is common multiple of ....
{ (9 , 2) / (3 , 9) / (5 , 3) / (3 , 6) }
(9) The number 10 is common multiple of ....
{ (11 , 8) / (9 , 6) / (5 , 2) / (5 , 3) }
(10) The number ...... is common multiple of all number except itself (0 , 1 , 2 , 3)

Q2: Complete:

(1) The prime number just comes after 13 ....
(2) All prime number even except ....
(3) Factors of number 1 is ....
(4) The smallest odd prime number ....
(5) The prime number sum of its factors 14 is ....

Q3: Underline the prime number :

2 7 25 29 34 57

Unit (7)

Q1: Choose the correct answer:

(1) The product of $13 \times 4 =$ .... (32 – 27 – 43 – 52)

(2) The number multiplied by 9 , the result 99 is .... (10 , 100 , 11 , 19)

(3) School has 8 classes , each class has 25 student , then the total number of student = ... { (8 × 25) , (25 – 8) , (25 + 9) , (25 ÷ 8) }

(4) Ahmed buy 5 bags, if the price of one bag is 66 L.E , then the price of 5 bags = ... L.E (71 , 210 , 330 , 400)

(5) The product of $3 \times (6 + 60 + 600) =$ ....

{ (18 × 3) , (1800 + 180 + 18) , (1800) , (190) }

(6) $9 \times (7 + 50 + 300) = (9 \times 7) +$ (........ × ....) + (9 × 300)

{ (50 × 7) , (9 × 5) , (9 + 50) , (50 × 9) }

(7) If a × (6 + 30 + 400) = (5 × 6 + (5 × 30) + (5 × 400) , then a = ...

(6 , 2 , 5 , 3)

(8) 16 × 14   10 × 14 (< , > , =)

(9) 34 × 65 = ... { 1220 , (1200 + 20) , 2120 , (2000 + 200 + 10) }

(10) 15 × .... = 1500 (10 , 100 , 15 , 1)

(11) Which of the following multiply by (distribution) to 40 × 56

(a) (2 × 6) + (40 × 6) + (2 × 50) + (40 × 50)

(b) 56 × (20 + 4)   (c) 40 (6 + 50)   (d) (2 × 6) + (20 × 4)

(12) 6 × (6 + 40 + 300) = 6 × .... (436 , 346 , 46 , 364)

(13) 5 × 635   5 × (5 + 30 + 600) (< , > , = , otherwise)

(14) 6 × (40 tens + 40 hundreds) = ... (640 , 26400 , 264 , 840)

(15) 8 × .... = 160 (10 , 20 , 30 , 40)

Q2: Complete:

(1) 4 × 39 = (4 × 9) + (4 × ....)

(2) By using multiplying strategies to find 6,421 × 6 = ...

(3) 4, 16 , 64 , ... , ... , ...

(4) 60 × 65 = a × 60 + 3,600 , then a = ...

(5) The place value of 8 in the number 8,076 ....

Unit (8)

The order of operation :

(1) Find the operation in side brokers.

(2) Multiplying and division from left to right.

(3) Adding and subtraction from left to right .

Q1: Choose the correct answer:

(1) The multiplication of 48×9 is .... (500 , 5000 , 288 , 432)

(2) $5 \times 2 + 4 =$ .... (9 , 18 , 10 , 14)

(3) The value of $6 \times 12 \div 8 + 3 =$ .... (12 , 13 , 20 , 58)

(4) $3800 \div 100 =$ .... (218 , 38 , 308 , 58)

(5) If $a + 5 \times 6 = 38$ then $a =$ .... (6 , 8 . 9 . 10)

(6) The value $3 + 3 + 3 \div 3 =$ .... (3 , 9 , 1 , 7)

(7) $14 + 6 \times (10 \div 10) =$ .... (12 , 64 , 10 , 20)

(8) The value of $90 - 6 + 2 \times 8 =$ .... (100 , 120 , 16 , 84)

(9) Ahmed bought pencils for 35 pounds , then he bought a book for the double of the price of the pencils , then he paid ...... (70 , 15 , 105 , 35)

(10) $13 + 7 - 25 \div 5 =$ .... (12 , zero , 15 , 25)

Q2: Complete:

(1) Multiply $62 \times 19 =$ ....

(2) $80 + 8 \times 10 =$ ....

(3) $(5 + 7) \div 2 =$ ....

(4) If $3 \times 0 + X = 8$, then $X =$ ....

(5) $8 + (15 \div 3) - 5 \times 2 =$ ....